

CLAIMS

What is Claimed Is:

1. An apparatus for registering a network server, comprising:
5 a first identifier uniquely identifying a network server having a logical server name;
a scanner reading the first identifier, wherein the scanner also permits entry of network server-related information, including network server location information; and
10 a memory storing the scanned first identifier, the logical server name, and the network server location information, wherein the stored first identifier, name, and information are related to each other.
2. The apparatus according to claim 1, further comprising:
15 a second identifier affixed to a rack location where the network server is located, wherein the scanner reads the second identifier and the memory stores the scanned second identifier as network server location information related to the stored scanned first identifier.
- 20 3. An apparatus for registering a network server, comprising:
a coupler affixed with a unique identifier and attached to a network server;
a reader reading the unique identifier affixed to the coupler; and
a memory storing the read unique identifier.
- 25 4. An apparatus for registering a network server, comprising:
a coupler associated with a unique identifier;
a first memory of the coupler initialized with a unique identification number associated with the unique identifier;
a network server to which the initialized coupler is associated;

a scanner reading the unique identifier; and
a second memory storing the scanned unique identifier.

5 5. The apparatus according to claim 4, wherein the unique identifier is a bar
code label.

6. The apparatus according to claim 4, further comprising:
a second unique identifier affixed to a rack location where the network
server is located, wherein the scanner reads the second unique identifier and the second
10 memory stores the read second unique identifier as network server location information
associated with the stored scanned unique identifier.

7. The apparatus according to claim 4, further comprising:
a network to which the network server is connected, wherein the logical
15 server name of the network server is retrieved from the network and stored in the first
memory.

8. The apparatus according to claim 4, wherein the scanner is a hand-held
scanner requiring successful user login prior to use.
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9. The apparatus according to claim 8, further comprising:
a third memory accepting an identification and a password entered during
a user login, wherein the identification and password are transmitted from the third
memory to the second memory, and wherein a level of authorization based on the entered
25 identification and password is verified and the functions of the scanner are limited based
on the verified authorization.

10. The apparatus according to claim 8, wherein the scanner receives
information associated with the network server and transmits the received information to

the second memory for storage and wherein the received information is selected from the group of server-related information, consisting of rack location, customer name, role, type, status, hostname, port, IP address, and description.

5 11. A method for registering a network server, comprising:
 uniquely identifying a network server having a logical server name with a first identifier;

 reading the first identifier with a scanner, wherein the scanner also permits
10 entry of network server-related information, including network server location information; and

 storing the scanned first identifier, the logical server name, and the network server location information in a memory, wherein the stored first identifier, name, and information are related to each other.

15 12. The method according to claim 11, further comprising:
 affixing a second identifier to a rack location where the network server is located, wherein the scanner reads the second identifier and the memory stores the scanned second identifier as network server location information related to the stored scanned first identifier.

20 13. A method for registering a network server, comprising:
 affixing a unique identifier to a coupler attached to a network server;
 reading the unique identifier affixed to the coupler; and
 storing the read unique identifier in a database.

25 14. A method for registering a network server, comprising:
 associating a unique identifier with a coupler;
 initializing the memory of the coupler with a unique identification number associated with the unique identifier;

associating the initialized coupler with a network server;
scanning the unique identifier; and
storing the scanned unique identifier in a database.

5 15. The method according to claim 14, wherein the unique identifier is a bar
code label.

10 16. The method according to claim 14, further comprising:
affixing a second unique identifier to a rack location where the network
server is located;
reading the second unique identifier; and
storing the read second unique identifier in a database as network server
location information associated with the stored scanned unique identifier.

15 17. The method according to claim 14, further comprising:
connecting the network server to a network;
retrieving the logical server name of the network server on the network;
and
storing the logical server name in the memory of the coupler associated
20 with the server.

 18. The method according to claim 14, wherein the unique identifier is
scanned with a hand-held scanner requiring successful user login prior to use.

25 19. The method according to claim 18, further comprising:
entering an identifier and password into the hand-held scanner;
transmitting the entered identifier and password to a database;
verifying a level of authorization based on the entered identifier and
password; and

activating only those functions of the hand-held scanner based on the verified level of authorization.

5 20. The method according to claim 18, further comprising:
entering information associated with the network server into the hand-held
scanner;
transmitting the entered information to the database; and
storing the transmitted entered information in the database,
wherein the entered information is selected from the group of server-
10 related information, consisting of rack location, customer name, role, type, status,
hostname, port, IP address, and description.

15 21. A method for registering a network server, comprising:
affixing a unique identifier to a network server;
scanning the unique identifier affixed to the network server;
storing the scanned unique identifier in a database;
connecting the network server to a network;
retrieving the logical server name of the network server on the network;
and
20 storing the logical server name in the database as information related to the
stored unique identifier.

25 22. The method according to claim 21, further comprising:
affixing a second unique identifier to a rack location where the network
server is located;
reading the second unique identifier; and
storing the read second unique identifier in a database as network server
location information related to the stored scanned unique identifier.

23. The method according to claim 21, wherein the unique identifier is scanned with a hand-held scanner requiring successful user login prior to use.

24. The method according to claim 23, further comprising:
5 entering an identifier and password into the hand-held scanner;
transmitting the entered identifier and password to a database;
verifying a level of authorization based on the entered identifier and password; and
activating only those functions of the hand-held scanner based on the
10 verified level of authorization.

25. The method according to claim 23, further comprising:
entering information associated with the network server into the hand-held
scanner;
15 transmitting the entered information to the database; and
storing the transmitted entered information in the database,
wherein the entered information is selected from the group of server-related information, consisting of rack location, customer name, role, type, status, hostname, port, IP address, and description.

26. The method according to claim 23, wherein the database resides on the hand-held scanner.

27. A computer readable medium encoded with software to register a network
25 server by reading a unique identifier attached to a network server; receiving location information for the network server; receiving the logical server name for the network server; and storing the read unique identifier, the location information, and the logical server name for the network server in a memory, wherein the unique identifier, the location information, and the logical server name are related to each other in the memory.

28. The computer readable medium according to claim 27, further encoded with software to enter commands and receive information through a hand-held controller.

29. The computer readable medium according to claim 28, wherein the
5 commands available to be entered include entering location information for the network server.

30. The computer readable medium according to claim 28, wherein the
10 information received includes a map displaying the location of the selected network server.

31. A computer program embodied on a computer-readable medium to register a network server, comprising:
15 a identification code section to read a unique identifier attached to a network server;
a location code section to receive location information associated with the network server;
a network code section to receive the logical server name for the network server; and
20 a memory code section to store in a memory the read unique identifier, the received location information, and the received logical server name, wherein the stored location information and the stored logical server name are linked to the unique identifier in the memory.

25 32. The computer program according to claim 31, further comprising:
a command code section to enter commands and receive information through a hand-held controller.

33. The computer program according to claim 32, wherein the commands

available to be entered include entering location information for the network server.

34. The computer program according to claim 32, wherein the information received includes a map displaying the location of the selected network server.

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35. An apparatus for locating a network server, comprising:
a first display displaying the logical server name of a sought network server;
a first processor searching a database for the displayed logical server name; and
a second display displaying location information for the network server from a record found by the processor in the database.

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36. The apparatus according to claim 35, wherein the displayed location information is presented in the form of a map of a data center in which the network server is located.

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37. The apparatus according to claim 35, wherein the displayed location information is presented in the form of directions to guide a user to the network server location.

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38. The apparatus according to claim 35, further comprising:
a third display displaying an identification value for the network server from the found record in the database;
a scanner reading an identifier on a network server located at the location displayed from the found record in the database; and
a second processor comparing the read identifier with the displayed identification value for a match.

39. The apparatus according to claim 35, further comprising:
a memory storing the logical server name of the network server, wherein
the memory is that of a coupler attached to the network server;
a reader reading the logical server name from the memory of a coupler
5 attached to a network server at the location displayed from the found record; and
a third processor comparing the read logical server name with the
displayed logical server name for a match.

40. A hand-held controller for locating a network server, comprising:
10 a communications interface receiving identification information related to
a sought network server;
a memory storing identification information for the sought network server;
a scanner reading an identifier associated with a selected network server;
and
15 a processor comparing the read identifier with the received identification
information to determine whether the selected network server is the sought network
server.

41. The hand-held controller according to claim 40, wherein the received
20 identification information includes network server location information.

42. A platform for processing a software-based transaction, comprising:
a communications unit receiving identification information related to a
network server;
25 a memory unit storing said identification information;
a scanner unit reading a unique identifier associated with a selected
network server;
a processor unit comparing the read unique identifier with the received
identification information; and

a display unit displaying the results of the comparison.

43. The platform according to claim 42, wherein the received identification information includes location information associated with the network server.

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44. A method for locating a network server, comprising:
displaying the logical server name of a sought network server;
searching a database for the displayed logical server name; and
displaying location information for the network server from a found record
in the database.

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45. The method according to claim 44, wherein the displayed location information is presented in the form of a map of a data center in which the network server is located.

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46. The method according to claim 44, wherein the displayed location information is presented in the form of directions to guide a user to the network server location.

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47. The method according to claim 46, wherein the directions to guide a user are displayed as direction arrows on the displayed map of the data center.

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48. The method according to claim 44, further comprising:
displaying an identification value for the network server from the found record in the database;
scanning an identifier on a network server located at the location displayed from the found record in the database; and
comparing the scanned identifier with the displayed identification value for a match.

49. The method according to claim 48, further comprising:
displaying a warning should the comparison not produce a match.

5 50. The method according to claim 48, further comprising:
displaying information guiding a user from the location of the located
network server to the location of the sought network server, should the comparison not
produce a match.

10 51. The method according to claim 44, further comprising:
storing in a memory of a coupler attached to a network server the logical
server name of the network server;
reading the logical server name from the memory of a coupler attached to a
network server at the location displayed from the found record; and
15 comparing the logical server name read from the coupler at the displayed
location with the displayed logical server name for a match.

52. The method according to claim 51, further comprising:
displaying a warning should the comparison not produce a match.

20 53. The method according to claim 51, further comprising:
displaying information guiding a user from the location of the read coupler
to the location of the network server requiring access, should the comparison not produce
a match.

25 54. A computer readable medium encoded with software to locate a network
server by receiving identification information related to a sought network server;
retrieving from a memory identification and location information associated with the
identified sought network server; reading an identifier associated with a server at the
retrieved location; and comparing the read identifier with the retrieved identification

information for a match.

55. The computer readable medium according to claim 54, further encoded with software to enter commands and receive information through a hand-held controller.

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56. The computer readable medium according to claim 55, wherein the commands available to be entered include entering location information for the network server.

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57. The computer readable medium according to claim 55, wherein the information received includes a map displaying the location of the selected network server.

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58. A computer program embodied on a computer-readable medium to locate a network server, comprising:

a identification code section to receive identification information associated with a sought network server;

a data retrieval code section to retrieve from a memory location information associated with the sought network server; and

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a display code section to display the received identification information and the retrieved location information associated with the network server.

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59. The computer program according to claim 58, further comprising:

a read code section to read an identifier associated with a server at the retrieved location of the selected network server; and

a processor code section to compare the read identifier with the retrieved identification information for a match.

60. The computer program according to claim 58, further comprising:

a command code section to enter commands and receive information through a hand-held controller.

5 61. The computer program according to claim 60, wherein the commands available to be entered include entering location information for the network server.

 62. The computer program according to claim 60, wherein the information received includes a map displaying the location of the selected network server.

10 63. An apparatus for identifying a server on a network, comprising:
 a unique identifier associated with a network server;
 an interface retrieving the logical server name of the network server on the
 network;
 a database storing the unique identifier data and the location data for the
15 network server as related information;
 a display displaying the unique identifier and the location information from the database for a selected network server;
 a reader reading an identifier associated with a server at the displayed location; and
20 a processor comparing the read identifier with the displayed unique identifier for a match to verify the identity of the server at the displayed location.

 64. An apparatus for determining the logical server name of a network server, comprising:
25 a plurality of network servers, each associated with a unique identifier;
 a database storing a unique identification number associated with each of the unique identifiers;
 a network to which the network servers are connected;
 an interface retrieving the logical server names of the network servers

connected to the network;

a first processor linking in the database the stored unique identification numbers with the retrieved logical server names;

a reader reading an identifier associated with a selected network server;

5 a second processor querying the database for the stored unique identification number linked to the read identifier; and

a display displaying a found logical server name linked to the queried unique identification number.

10 65. An apparatus for identifying a network server, comprising:

a coupler having a memory and attached to a network server;

a network to which the network server is connected;

15 an interface retrieving the logical server name of the network server connected to the network, wherein the logical server name of the network server is stored in the memory of the coupler attached to the network server;

a display displaying the logical server name and the location information for a selected network server;

a reader reading the logical server name stored in the memory of a coupler attached to a server at the displayed location; and

20 a processor comparing the read logical server name with the displayed logical server name for a match to verify the identity of the server at the displayed location.

25 66. An apparatus for identifying a network server, comprising:

a coupler affixed with a unique identifier;

a memory of the coupler initialized with a unique identification number associated with the unique identifier;

a network server to which the coupler is associated;

a memory of a database storing the unique identification number and

location information for the network server;

a display displaying the stored unique identification number and the location information for a selected network server;

5 a reader reading an identification number from the memory of a coupler associated with a server at the displayed location; and

a processor comparing the read identification number with the displayed unique identification number for a match to verify the identity of the located network server.

10 67. A method for identifying a server on a network, comprising:

attaching a unique identifier to a network server;

storing the unique identifier data and the location data for the network server as related information in a database;

15 displaying the unique identifier and the location information from the database for a selected network server;

reading an identifier attached to a server at the displayed location; and

comparing the read identifier with the displayed unique identifier for a match to verify the identity of the located network server.

20 68. A method for determining the logical server name of a network server, comprising:

associating a unique identifier with a network server;

storing in a database a unique identification number associated with the unique identifier;

25 connecting the network server to a network;

retrieving the logical server name of the network server on the network;

linking in the database the retrieved logical server name with the stored unique identification number;

reading an identifier associated with a selected network server;

querying the database for the unique identification number associated with the read identifier; and

retrieving from the database the logical server name linked to the queried unique identification number.

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69. A method for identifying a network server, comprising:

attaching a coupler having a memory to a network server;

connecting the network server to a network;

retrieving the logical server name of the network server on the network;

10 storing the logical server name in the memory of the coupler attached to the network server;

displaying the logical server name and the location information for a selected network server;

15 reading the logical server name stored in the memory of a coupler attached to a server at the displayed location; and

comparing the read logical server name with the displayed logical server name for a match to verify the identity of the server at the displayed location.

70. A method for identifying a network server, comprising:

20 affixing a unique identifier to a coupler;

initializing the memory of the coupler with a unique identification number associated with the unique identifier;

attaching the initialized coupler to a network server;

25 storing the unique identification number and location information for the network server in a database;

displaying the stored unique identification number and the location information for a selected network server;

reading an identification number from the memory of a coupler attached to a server at the displayed location; and

comparing the read identification number with the displayed unique identification number for a match to verify the identity of the server at the displayed location.

- 5 71. An apparatus for displaying data center equipment information, comprising:
- a database storing identification and location information for equipment located in a data center;
- a controller accepting commands;
- 10 a first display unit displaying a map of the data center based on a command entered on the controller;
- a second display unit displaying information regarding data center equipment based on a command entered on the controller;
- a processor modifying the displayed map or the displayed information
- 15 based on a command entered on the controller; and
- a locator displaying information to guide a user from one location to another in the data center.

72. A computer readable medium encoded with software to identify a network
- 20 server by reading a unique identifier associated with a network server; receiving location information associated with the network server; storing the read unique identifier and the location information in a memory; displaying the unique identifier and the location information from the memory for a selected network server; reading an identifier associated with a server at the displayed location; and comparing the read identifier with
- 25 the displayed unique identifier for a match to verify the identity of the server at the displayed location.

73. The computer readable medium according to claim 72, further encoded with software to enter commands and receive information through a hand-held controller.

74. The computer readable medium according to claim 73, wherein the commands available to be entered include entering location information for the network server.

5 75. The computer readable medium according to claim 73, wherein the information received includes a map displaying the location of the selected network server.

10 76. A computer program embodied on a computer-readable medium to identify a network server, comprising:
a identification code section to read a unique identifier attached to a network server;
a location code section to receive location information associated with the network server;
15 a memory code section to store in a memory the read unique identifier and the received location information;
a data retrieval code section to retrieve identification and location information from the memory for a selected network server;
a read code section to read an identifier attached to a server at the retrieved
20 location of the selected network server; and
a processor code section to compare the read identifier with the retrieved identification information for a match to verify the identity of the server at the retrieved location.

25 77. The computer program according to claim 76, further comprising:
a command code section to enter commands and receive information through a hand-held controller.

78. The computer program according to claim 77, wherein the commands

available to be entered include entering location information for the network server.

79. The computer program according to claim 77, wherein the information received includes a map displaying the location of the selected network server.

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80. The computer program according to claim 76, further comprising:
a alarm code section to produce a warning should the comparison not produce a match.

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81. A platform for processing a software-based transaction, comprising:
a communications unit receiving identification information related to a network server;
a memory unit storing network server location information associated with network server identification information;
15 a first display unit displaying location information associated with the identified network server;
a scanner unit reading an identifier attached to a network server at the displayed location;
a processor unit comparing the read identifier with the received
20 identification information to verify the identity of the server at the displayed location; and
a second display unit displaying the results of the comparison.